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METHOD AND DEVICE FOR THE DIGITAL IMAGE PROCESSING OF CMOS CAMERA  
IMAGES

CROSS REFERENCE TO RELATED APPLICATIONS

This application is the US national phase of PCT  
5 application PCT/DE2003/003939, filed 28 November 2003, published 1  
July 2004 as WO 2004/055727, and claiming the priority of German  
patent application 10258662.4 itself filed 13 December 2002, whose  
entire disclosures are herewith incorporated by reference.

FIELD OF THE INVENTION

10 The invention relates to a method as well as to a  
device for the digital image processing of CMOS camera images.

BACKGROUND OF THE INVENTION

To be able to process images with a computer system they  
must be converted to a data format which is computer compatible.  
15 This conversion is called digitalizing in digital image processing.  
The original image data is transformed into a computer-conforming  
data format. The transformations can be available as two-  
dimensional or multidimensional functions for the processing.  
Upon the taking of the picture, a continuous scene is spatially  
20 discretized. One possible mathematical description of digitalizing  
image data uses a notation in the form of image matrices. The  
image  $S$  (the scene  $S$ ) is a rectangular matrix (image matrix)  $S =$   
 $(s(x, y))$  with image rows and image columns. The row index is  $x$   
and the column index is  $y$ . The image point (pixel) at a location  
25 (row, column) =  $(x, y)$  determines the gray value  $s(x, y)$ . Thus  
elemental regions of the scene are each imaged as a pixel of the  
image matrix. For digitalizing the image data, a rastering (grid,